EAGLEVIEW

USER MANUAL

Revision E

TABLE OF CONTENTS

1. Thank you for buying EagleView

Dear customer, we would like to thank you for your trust for purchasing our products.

Our team is dedicated to provide you the easiest and reliable products to use for your business.

This manual will help you through the Installation of the system.

Thanks,

The EagleView team.

2. In the box

The box contains at least the following items:

1   Eagleview Display
1   Eagleview Manager Software - Installation CD
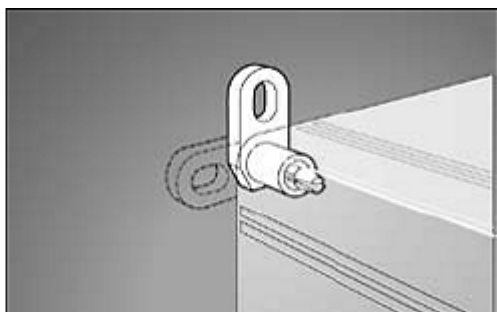1   This manual
4   Mounting bracket

You can also find optional items if ordered.

3. STEP BY STEP INSTALLATION

3.1. Truck Mounting

Find a place on the truck to mount your Eagleview Display.

Use the 4 mounting bracket to fix the display on the Truck.

You may need to build a custom support for the display.

Note: Do not drill holes in the Box to mount the display on the truck.

3.2.Electric wiring of the Eagleview Display

First select the section that fit with you needs.

3.2.1. Single Eagleview with harness for EMR single head Application

Description: Single Eagleview display with 12 pins harness cable connected to one Veeder-root EMR Head.

Red   12V
Orange   12V
Brown   GND
Yellow   Not Connected

Power
(free wire)

White   IB network B
Green   IB network A
Black   GND

Veeder-root
Interconnection
Box
(free wire)

Turck Cable #WSCV 12T-12

EAGLEVIEW

Pink   Diag_Rx
Blue   Diag_Tx
Grey   GND

Config
(DB9 female connector)

Tan   TN-H
Violet   TN-L

Tekinno Network
(Molex plug & receptacle)
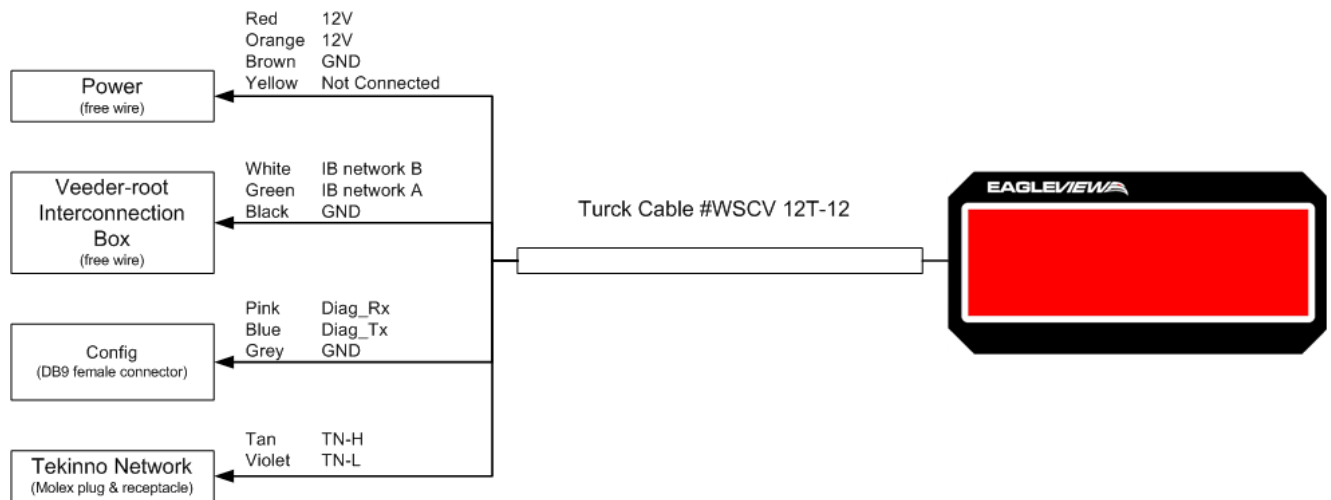
Important note:

If two EMR head is present, the Eagleview will display value from both EMR Head but only one at the time. To reduce the risk of confusion, we recommend using two Eagleview display on dual EMR head on one truck.

The Tekinno Network cable is not used in this application.

Never cut or disconnect the DB-9 connector. The connector is necessary to upgrade the display firmware and also change its parameters.

3.2.2. Dual Eagleview with harness for EMR dual head Application

Description: Two Eagleview displays with 12 pins harness cable connected to Veeder-root EMR system with 2 Head.

Important note:

Never cut or disconnect the DB-9 connector. The connector is necessary to upgrade the display firmware and also change its parameters.

3.2.3. Eagleview with harness cable for Mechanical Register Application (6 Pin)

Description: For +5V or +12V mechanical register applications. To begin a delivery, a ground signal (GND) must be applied to the RESET input. The Eagleview may be connected on one bidirectional pulse transceiver or on two unidirectional pulse transceivers. Refer to the Eagleview Manager Software to adjust pulse ratio.
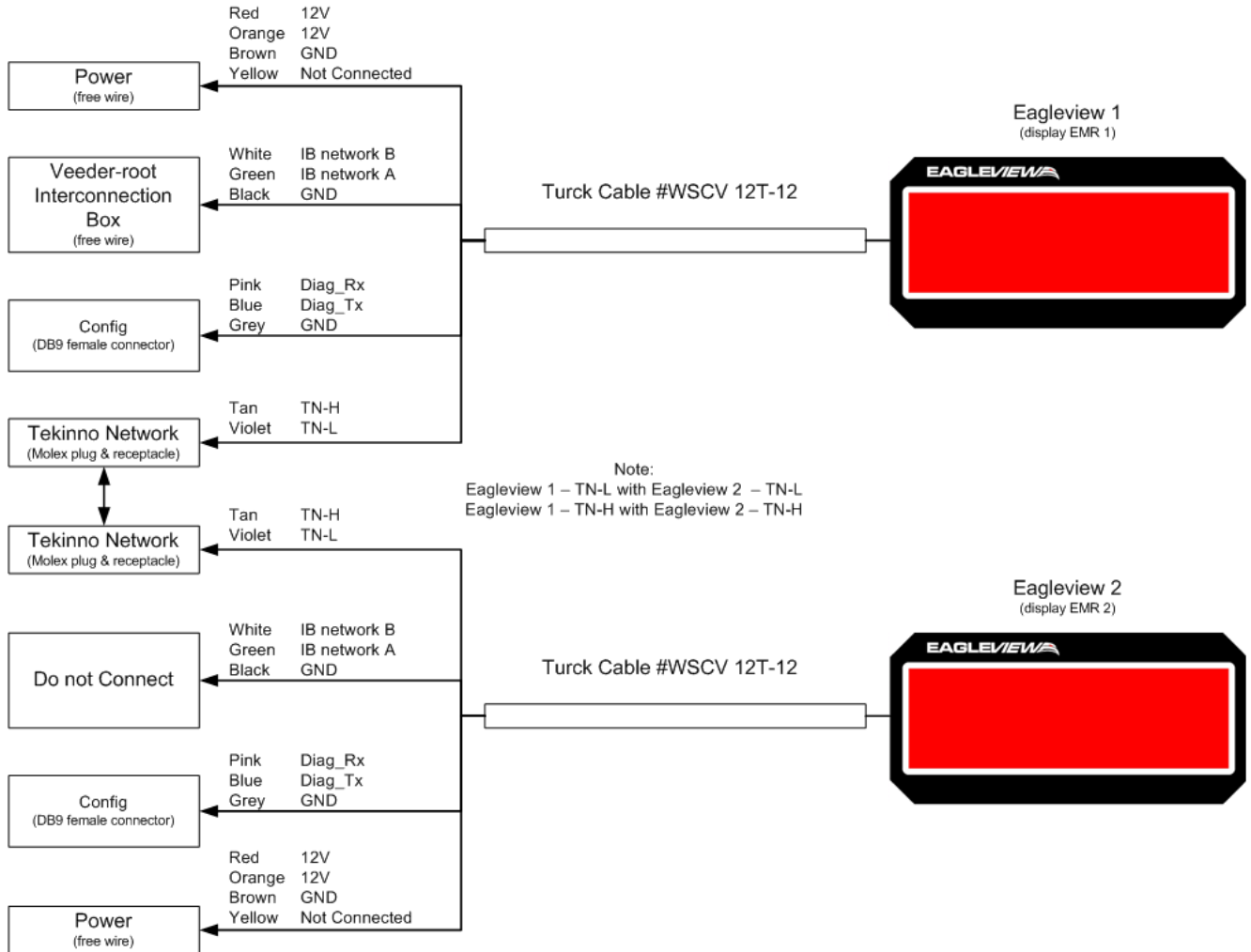

Important note:

If two mechanical register is present, the Eagleview will display value from both Register Head but only one at the time. To reduce the 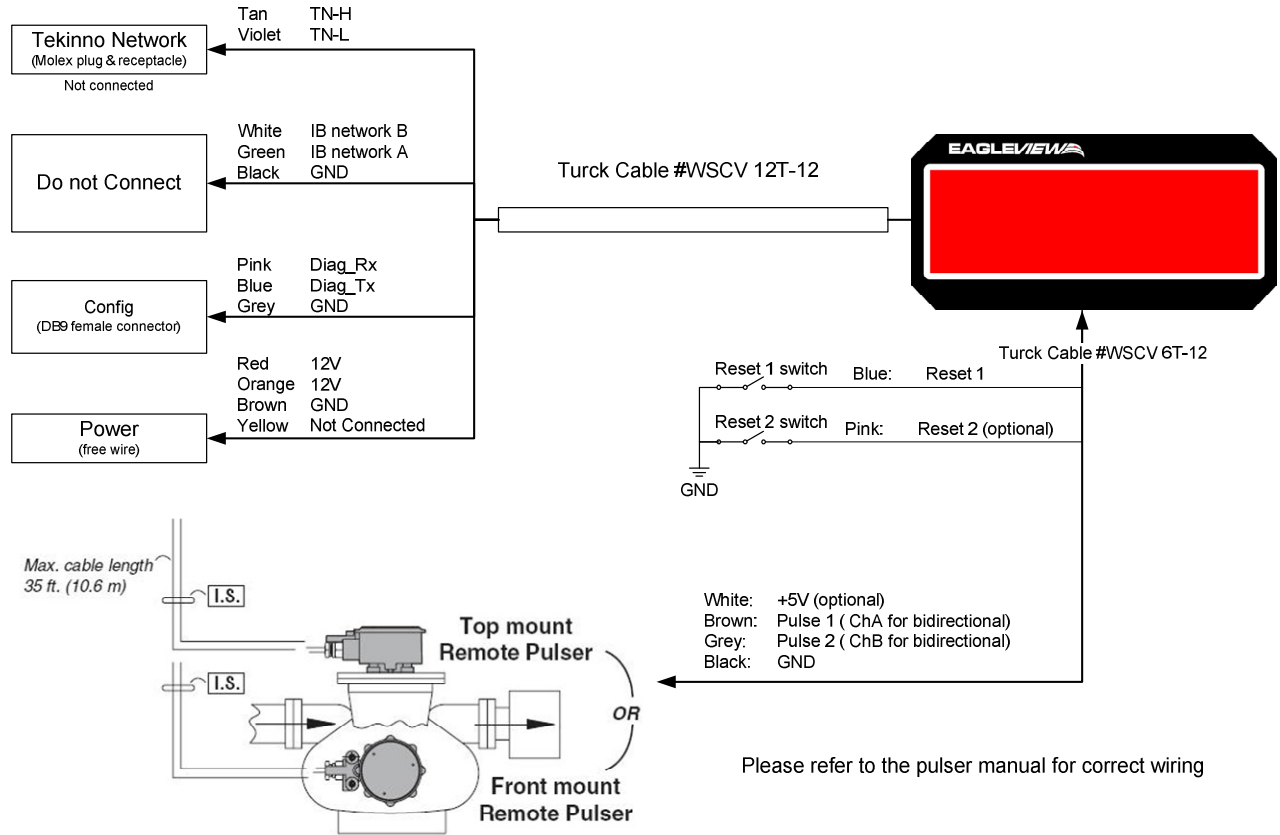risk of confusion, we recommend using one Eagleview by Mechanical Register. Never cut or disconnect the DB-9 connector. The connector is necessary to upgrade the display firmware and also change its parameters.

The main connector and the pulse connector are different.

Position of the connector on the bottom side of the display

3.2.4. Eagleview with harness cable for Mechanical Register Application (10 Pin)
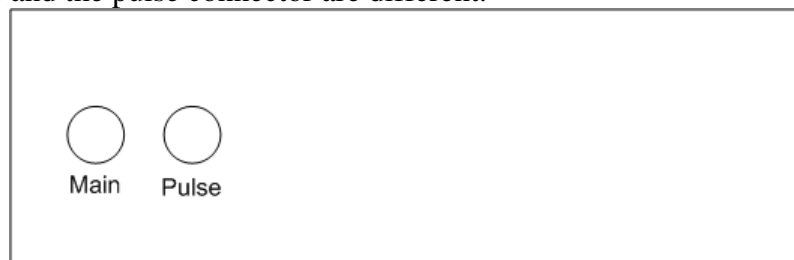
Description: For +5V or +12V mechanical register applications. To begin a delivery, a ground signal (GND) must be applied to the RESET input. The Eagleview may be connected on one bidirectional pulse transceiver or on two unidirectional pulse transceivers. Refer to the Eagleview Manager Software to adjust pulse ratio.

Note:
If two mechanical register is present, the Eagleview will display value from both Register Head but only one at the time. To reduce the risk of confusion, we recommend using one Eagleview by Mechanical Register. Never cut or disconnect the DB-9 connector. The connector is necessary to upgrade the display firmware and also change its parameters.
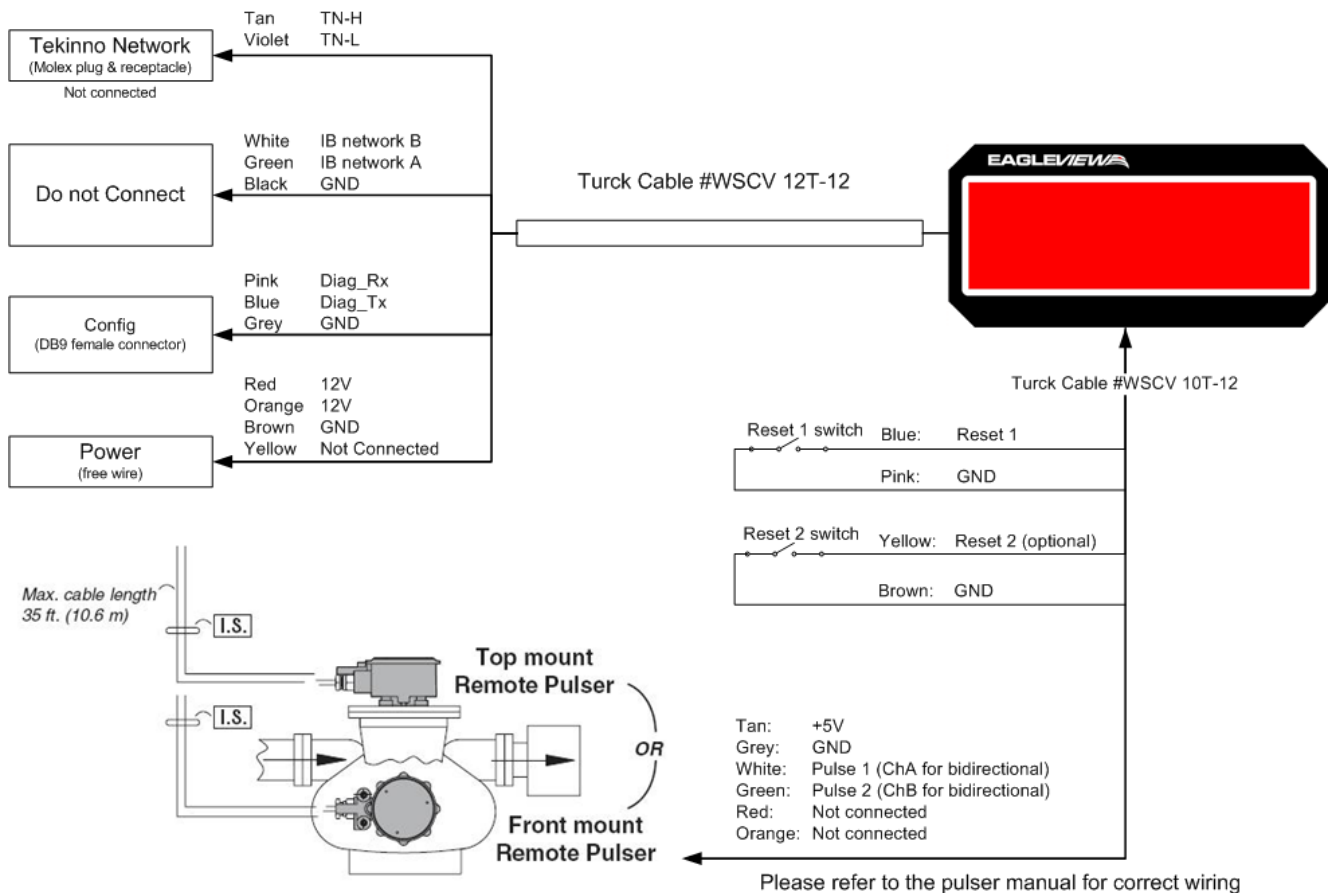
The main connector and the pulse connector are identical. If you interchange the cable, this will not harm the Eagleview but it will not work.

Position of the connector on the bottom side of the display

3.2.5. Eagleview without harness for EMR Application (IB network RS485)

Description: Internal wiring for an Eagleview connected to a Veeder-Root EMR system using the IB network communication port.
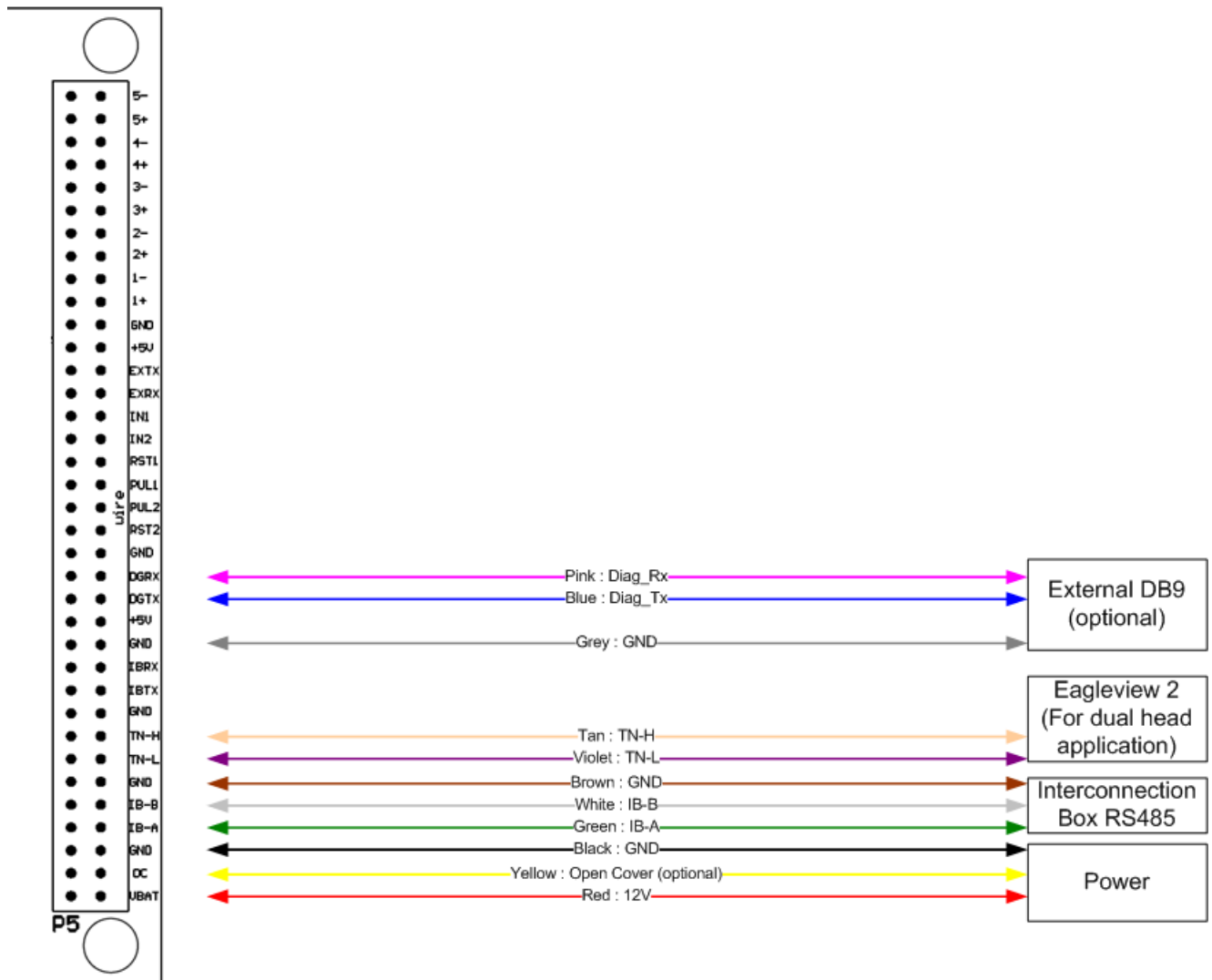
Note:

External DB9 is optional, the pin out of the DB9 connector is:
2: Diag_TX
3: Diag_RX
5: GND

The Eagleview for the second EMR Head do not need a connection to Interconnection Box.

Use NEMA 4X approved cable strain relief to eliminate the risk of water infiltration.

3.2.6. Eagleview without harness for EMR Application (IB network RS232)

Description: Internal wiring for an Eagleview connected to a Veeder-Root EMR system using the IB network communication port.
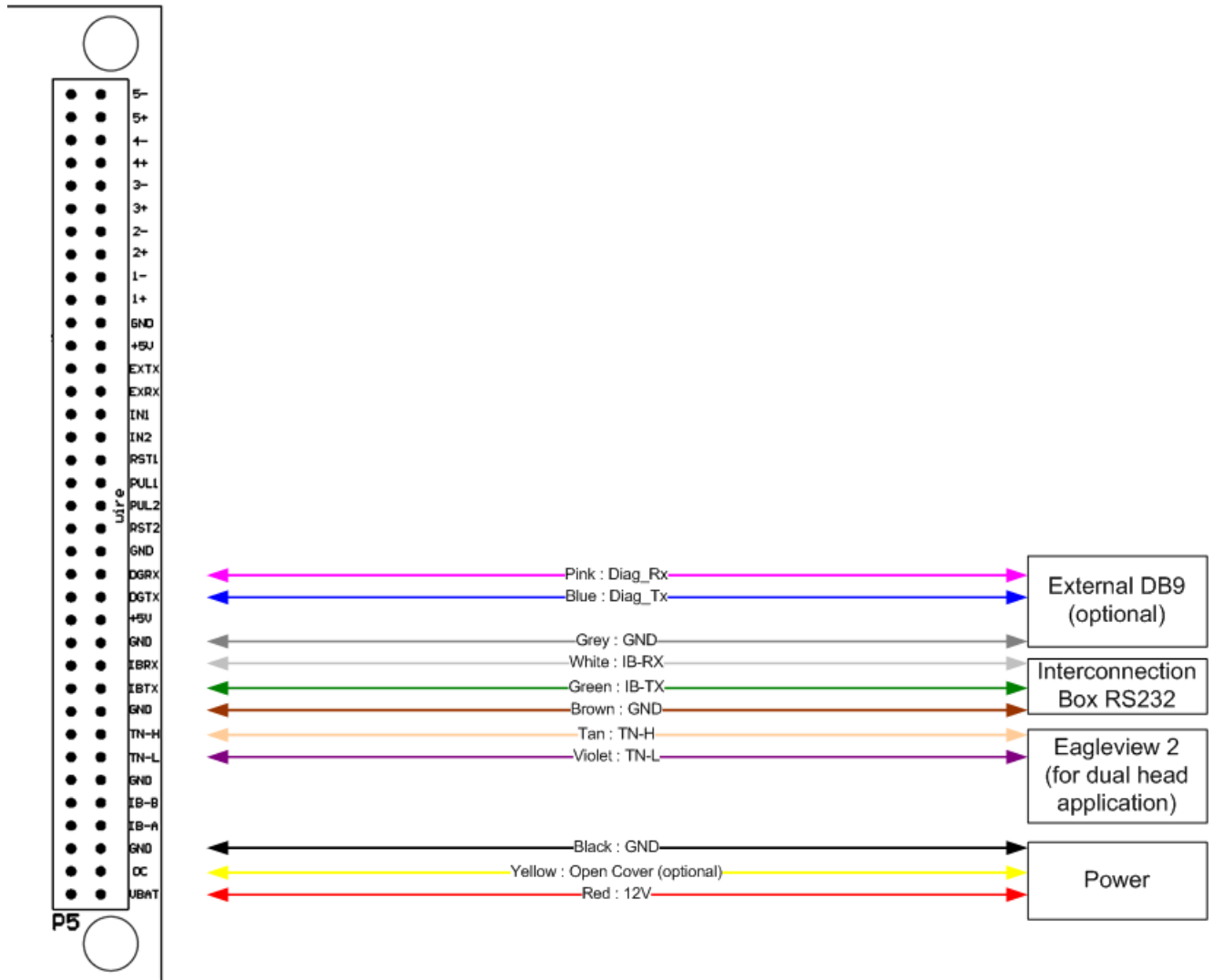
Note:

External DB9 is optional, the pin out of the DB9 connector is:
2: Diag_TX
3: Diag_RX
5: GND

The Eagleview for the second EMR Head do not need a connection to Interconnection Box.

Use NEMA 4X approved cable strain relief to eliminate the risk of water infiltration.

3.2.7. Eagleview without harness for unidirectional Mechanical Register

Description: Internal wiring for an Eagleview connected to a unidirectional mechanical register.
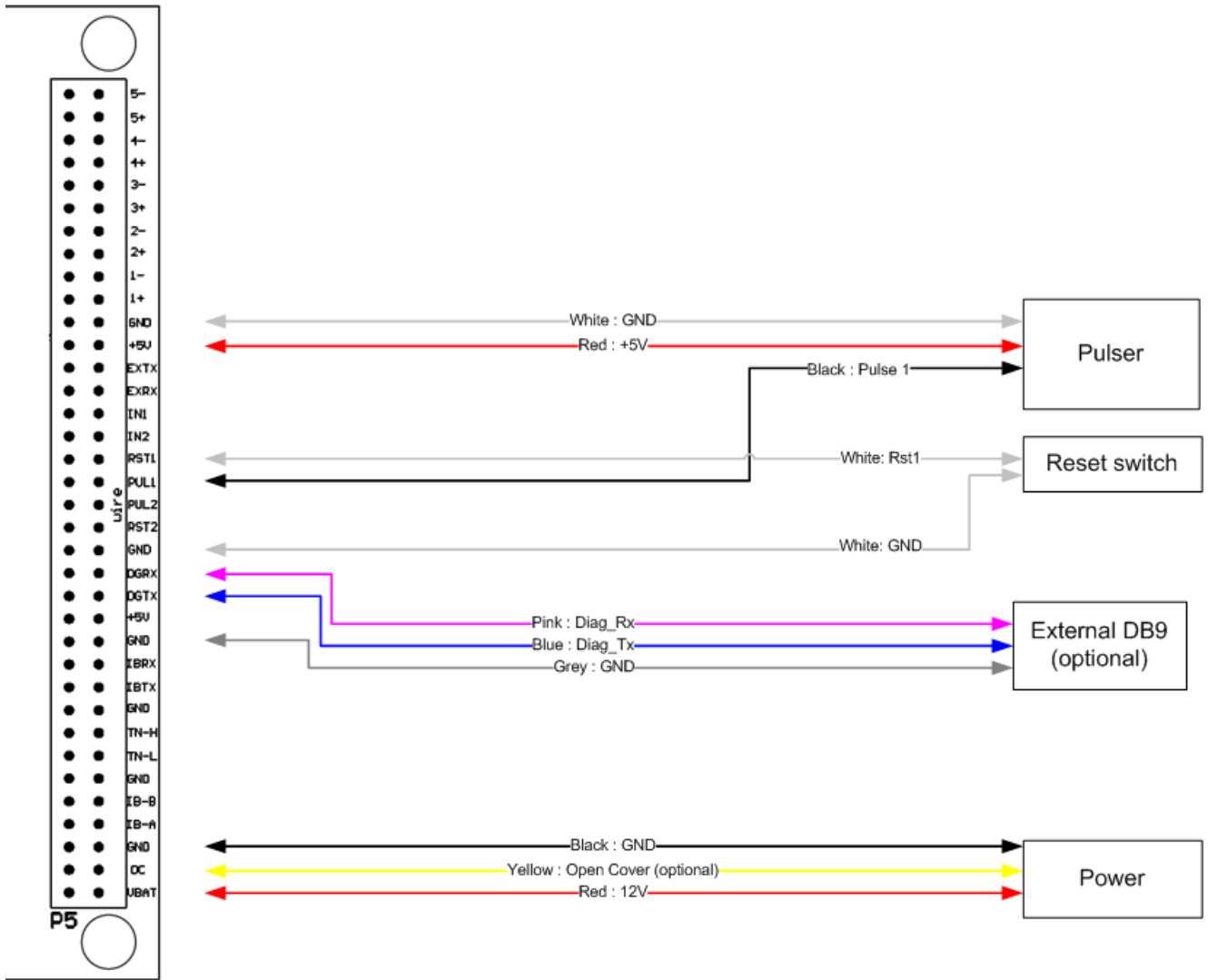
Note:

Cable color may vary. Please refer to the pulse transmitter documentation.

External DB9 is optional, the pin out of the DB9 connector is:
2: Diag_TX
3: Diag_RX
5: GND

Use NEMA 4X approved cable strain relief to eliminate the risk of water infiltration.

3.2.8. Eagleview without harness for bidirectional Mechanical Register

Description: Internal wiring for an Eagleview connected to a bidirectional mechanical register.
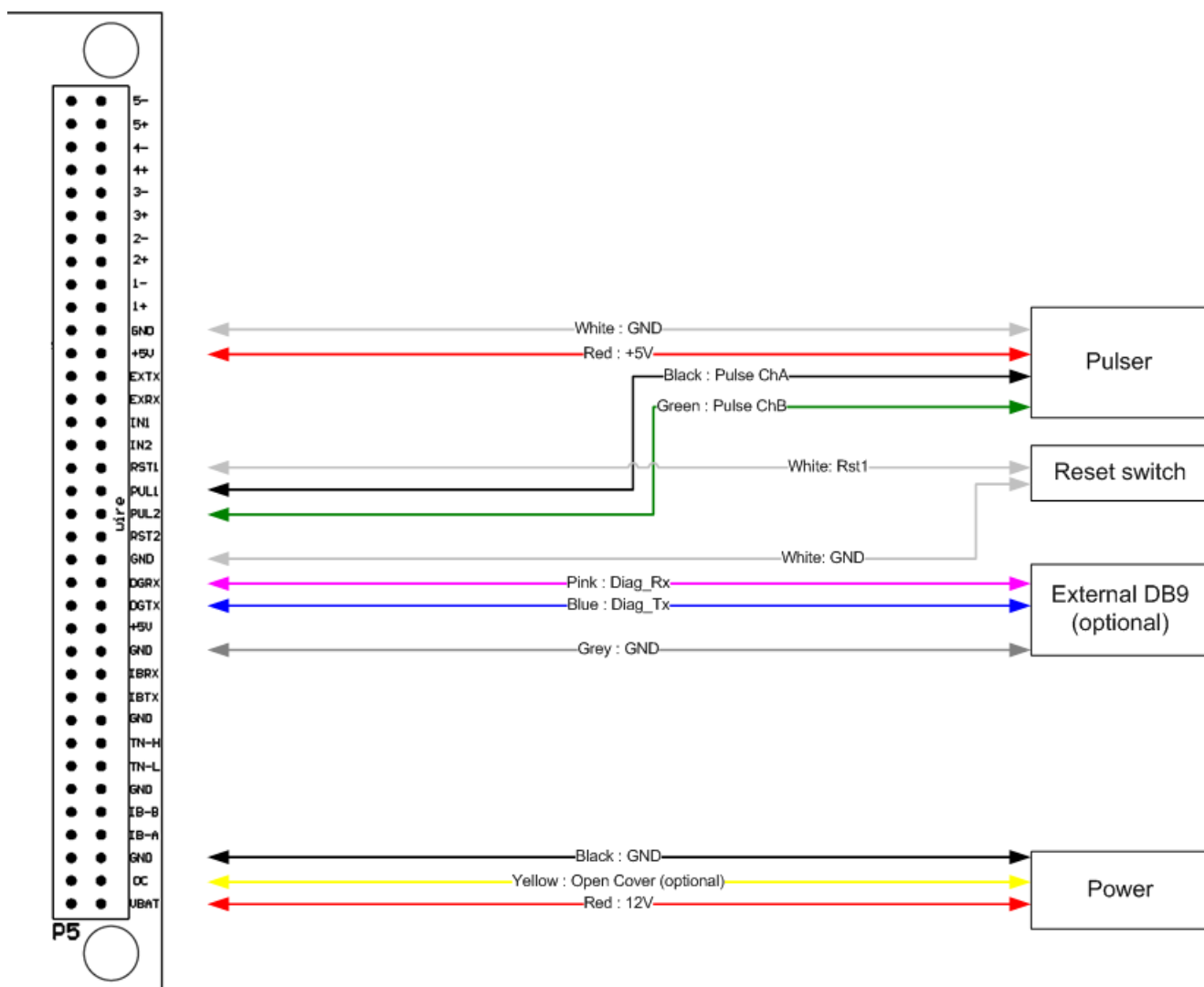
Note:

Cable color may vary. Please refer to the pulse transmitter documentation.

External DB9 is optional, the pin out of the DB9 connector is:
2: Diag_TX
3: Diag_RX
5: GND

Use NEMA 4X approved cable strain relief to eliminate the risk of water infiltration.

3.3. Changing EMR Network on an Eagleview with an harness

If you want to use the RS232 port instead of the IB network, you need to modify the internal wiring of the Eagleview.

Disconnect IB-A (green) and IB-B (white) signal and reconnect them respectively to IBRX (green) and IBTX (white) signal.
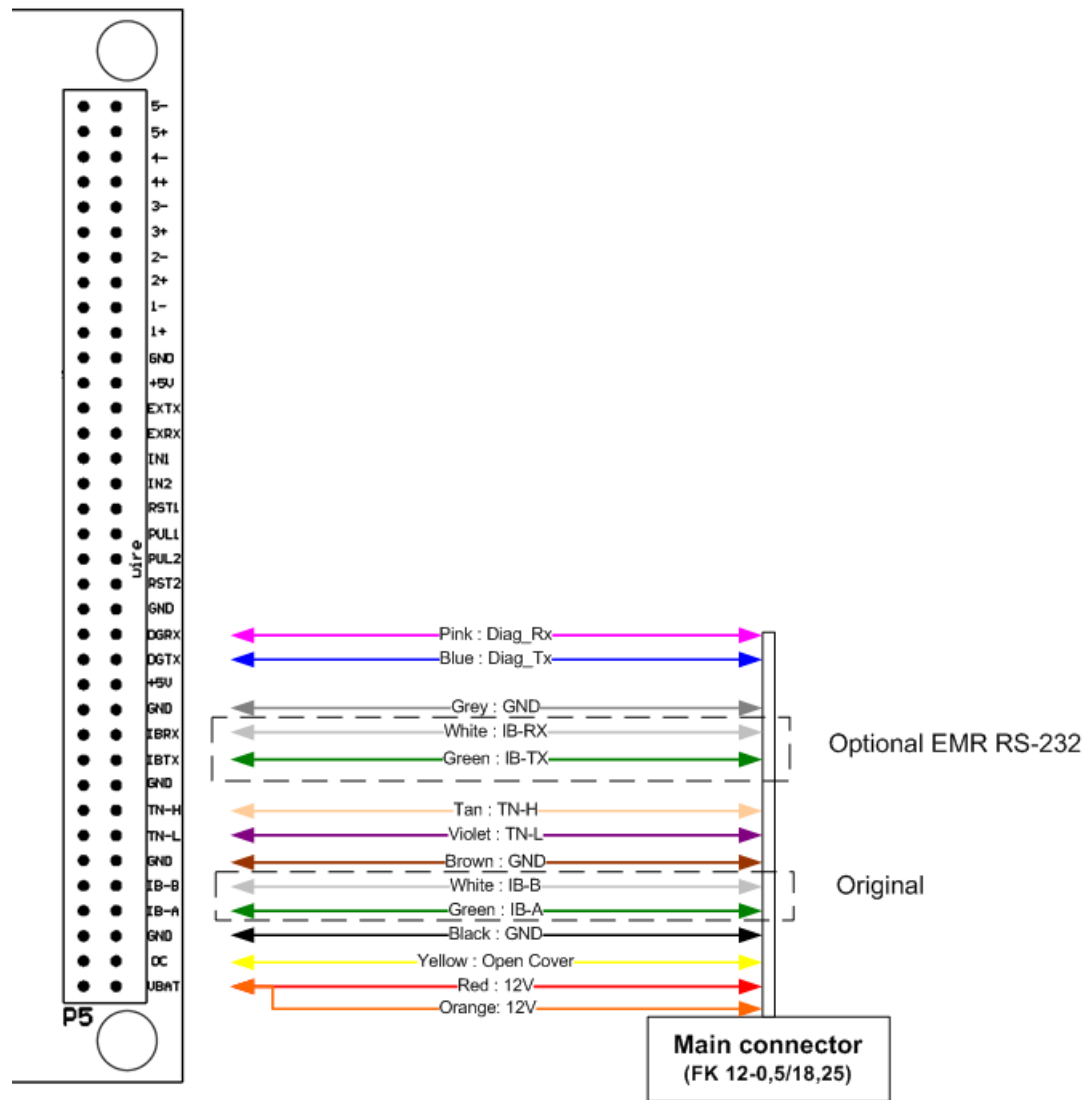
On the IB side, you need to connect IBRX (green) to the RS-232 TX terminal and IBTX (white) to RS-232 RX Terminal.

Make sure that the EMR RS-232 Port is configured to accept OBC command.

4. Powering up the Eagleview

Once the Eagleview is powered up, it starts display a countdown. This step allows you to verify that every digit is good. After the countdown (999999 to 000000), the Eagleview enter in the last saved mode. By default PNP mode.

In this mode, the Eagleview display acts as a plug and play device. It automatically detected, if it's connected to a Veeder-Root EMR or to a mechanical register and with another Eagleview Display.

For mechanical register, the default pulse ratio is 1/100 for two unidirectional register. To change the pulse ratio or to change setting for a bidirectional register, please refer to the Eagleview Manager Software Section.

Alphanumeric models display customs message before and after the delivery. Those messages can be change or disable by the Eagleview Manager Software. By default, the before delivery message is "Wait for a Delivery" and the after delivery message is "THANK YOU – TOTAL x US GAL" where x is obviously the total of the delivery. It displays blinking "------" in case of a communication error.

On numeric model, those messages are disabled. It display "------" when it is ready and it blinks in case of a communication error.

4.1. Mechanical Register – Starting a delivery

To start a delivery, flip the reset switch to the ON position. The display will show "888888" then "   0.0". Then do your delivery as usual. Once done, simply flip the reset switch back to the OFF position.

4.2. EMR Register – Starting a delivery

Simply use the EMR register as usual.

4.3. Direct RS-232 serial connection with PLC or PC

In order to communicate directly to the EagleView, you need to setup your serial port this way.
9600-N-8-1 (no parity - 1 stop bit - no Hardware flow control)

Please connect your PLC or PC or embedded system to the IBTX and IBTX signals. Those signals are normally used to communicate with EMR3 or MIDCOM ecount registers. But it can also be used to communicate with any device that has a free RS-232 serial port. If you would like to have a female DB9 connector, please solder IBTX (GREEN wire) to the pin 2, please solder IBRX (WHITE wire) to the pin 3, please solder GND (BLACK wire) to the pin 5 of the DSUB-DB9 connector. It is also critical that inside the EagleView enclosure, the GREEN, WHITE, BLACK wires are connected the serial signals IBTX, IBRX and GND. If those signals are connected to IB_A and IB_B (RS-485 protocols), the EagleView won't be able to communicate properly with your system.

There is three simple serial command to control and display message on the EagleView.
Commands are case sensitive and they always end with [Carriage Return] 0x0D character.

While using a simple terminal (ie Hyperterminal, Putty or any other you may choose), every character sent will be echoed by the EagleView back to the terminal. It is then easier for the user to see whet he typed in. Backspace and special characters are not supported. (arrows, escape, tab, home, end, delete, page up, page down, etc)

If the command sent is unknown, you will get a message INVALID COMMAND on the serial port.

4.3.1. « T » command :

T<arg1>,<arg2>,<arg3>,<arg4>,<arg5><enter>

arg1: Scroll speed --> value from -127 à 127. Recommended value is -78

arg2: Blinking --> 0 = blinking OFF   1 = blinking ON

arg3: # of times --> Number of times you want the message to be repeated. 0 = infinity up to 255 times

arg4: Reply Message --> 0 = you won't receive a reply message from the display to tell your system that the message displayed has ended. If you put 1, the message "DONE" will be send to your system

arg5: String Message --> the string message to be display on the display. The maximum length of the message is 100 characters.

If there is an error in the arguments you put in the T command, you will receive that string ERROR ARGn where n is the number of the wrong arguments.

Example 1: T-78,1,10,1,GO SAINTS GO<enter>

In this example, the EagleView display will show "GO SAINTS GO" with a -78 scrolling speed from the right, and i twill flash 10 times and will return the message DONE at the end.

Example 2: T0,0,0,0,   0.0<enter>
Will show this on the display screen "   0.0" no scrolling, no blinking, displayed infinitely and without reply message DONE

4.3.2. « V » Command

This command is similar to the T command with the exception that you provide only one argument, the text message you want to be display. Ideally, maximum 6 characters long. No scrolling, no blinking, no reply message DONE

Example 3: V99999.9<enter>
Shows "99999.9" infinitely on the screen.

Example 4 : V<enter>
Clear everything on the screen because there is no message.

This third command enables your system to send a numeric value to the display. This binary value is a signed float (4 bytes, little Indian)

F<Value Float (4 bytes)><enter>

As it is a binary command, you won't be able to type a command in the terminal. You need to connect your system where you control the communication process.

As Here an example Comme cest un commande binaire j'ai convertie les bytes en HEX pour l'exemple

Example 5: Here is binary command converted in hexadecimal to show you how it works.

0x46 0x00 0x00 0x00 0x00 0x0D

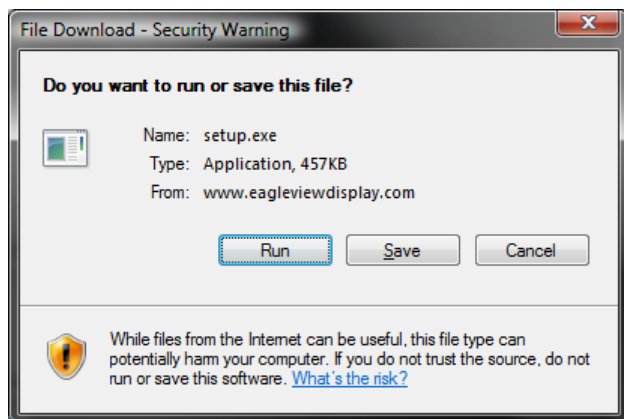0x46 = character F
0x0D = Carriage return

This will display the value 0.0 on the display.

End of the simple serial command section.

5. Eagleview Manager Software

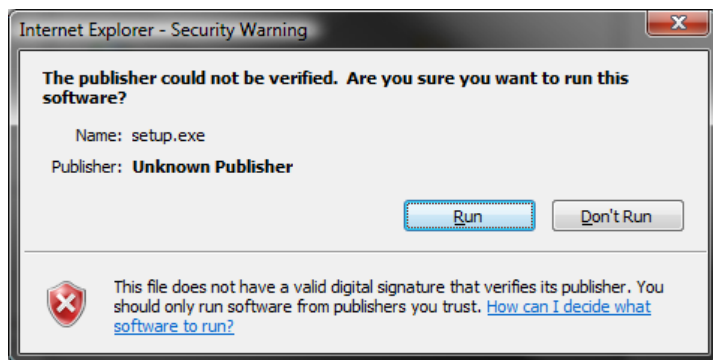## 5.1.Installation
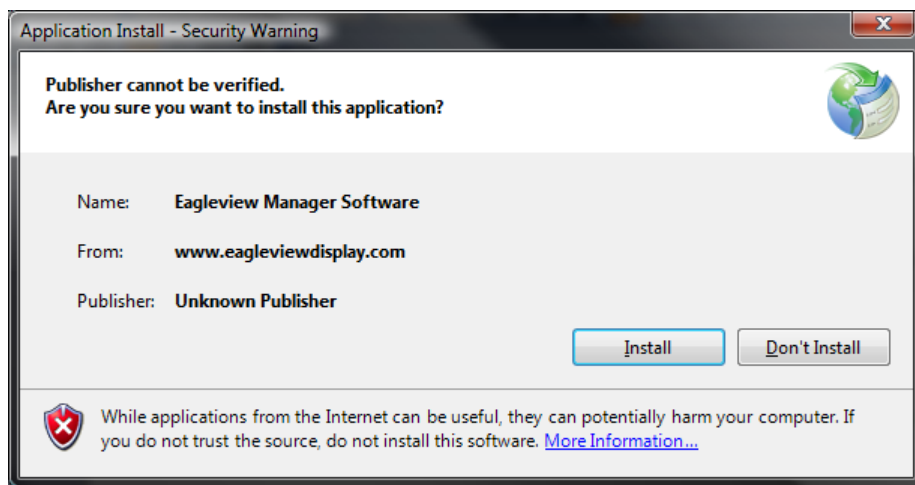
The software can be installed from the CD by click on Install Eagleview Manager Software on the menu or on the web at the address http://www.eagleviewdisplay.com/index.php?page=software .

Click Run.

If you have this Security warning again, click Run.

If you have this Security warning, click Install

The application will automatically start after the installation is complete.

5.2. Using the Eagleview Manager Software

Connect the Eagleview to one of your computer serial port. If you don't have a serial port, you can use a USB to serial cable. Make sure that the Eagleview power is on.

Then start the software by going to Start menu →programs → Tekinno Corporation Inc →Eagleview Manager Software

At the start-up, the software will scan every serial port on the computer to find an Eagleview.

If no Eagleview is detected, make sure that Eagleview is connected to one the computer serial port and that the Eagleview is ON. Than try to connect by clicking on the menu File → Connect

Once connect you will see this screen.
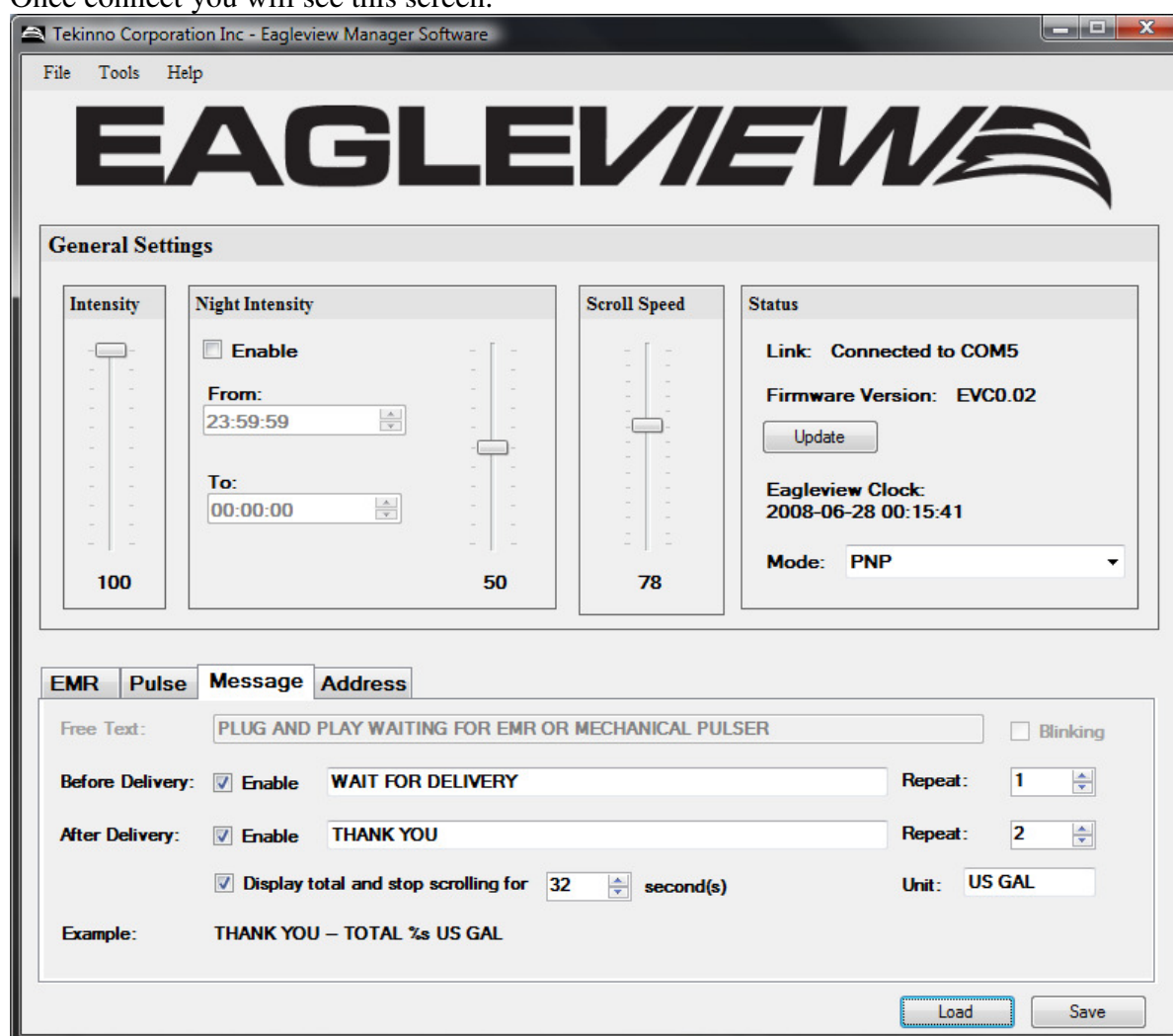
5.2.1. General Settings
- Intensity: Change display normal intensity from 0 to 100 %.
- Night Intensity: If enabled, you can set a lower intensity for night operation.
- Scroll speed: Allow to change the scroll speed of the message displayed on the Eagleview. Bigger number faster the scrolling speed. By Default is set to 78.
- Status: Show the status of the connection, the firmware version of the Eagleview, the clock and the current Mode.

   Note: The Update buttons allow you to update the Eagleview firmware. This feature will use only if a bug correction is needed or if new special feature is requested.

5.2.2. Save change to Eagleview

   Once every modification are done click on the Save button.

5.2.3. Load setting from Eagleview

   To load the current Setting of the Eagleview, click on the Load button.

5.2.4. Save setting to a file

   You can store the setting into a file so it can be use to give the same configuration to each Eagleview in your fleet. Simply click on the menu File→ Save

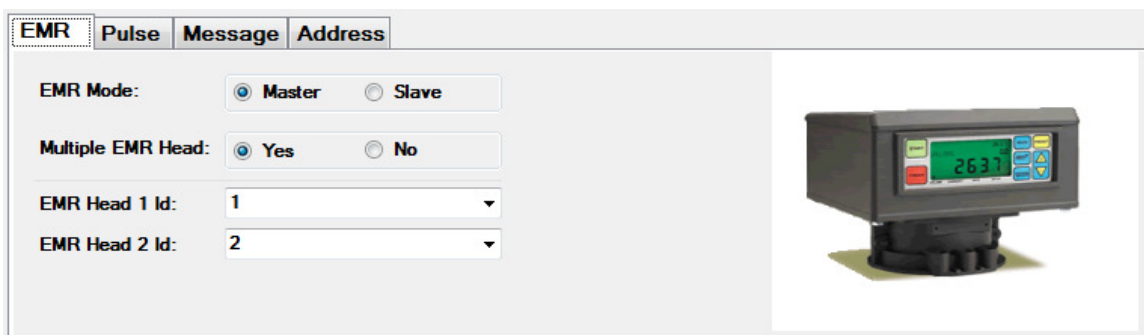### 5.2.5. Load setting from a file

   You can retrieve the setting from a file by clicking on the menu File→ Load

5.2.6. Changing the Eagleview's working mode

   Simply select the desire mode in the dropdown list "Mode".

CLOCK	Display Eagleview's clock
EMR	Use the Eagleview with a Veeder-Root EMR register
PULSE	Use the Eagleview with a Mechanical Register
FREE TEXT	Use the Eagleview to display a message in loop.
PNP	Put the Eagleview in Plug and play mode. It automatically detects EMR or Mechanical Register. (default mode)
TEST 1	Reserved to test the Eagleview.All Led is set to ON
TEST 2	Reserved to test the Eagleview.One segment is ON at the time.
TEST 3	Reserved to test the Eagleview. Not used
TEST 4	Reserved to test the Eagleview. Display Eagleview Slogan

5.2.7. Changing the Eagleview's EMR Setting

EMR Mode:
        Master :   For Eagleview connected to the EMR
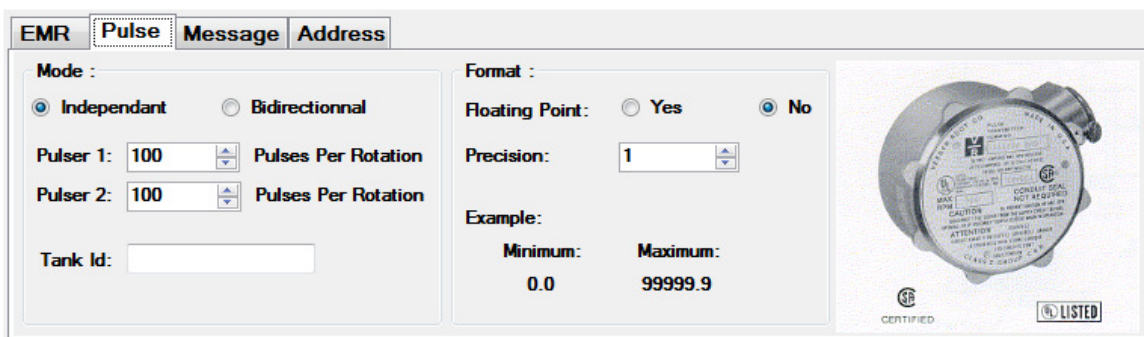   Slave: For the Eagleview 2 in a dual Head System.

Multiple EMR Head: Indicate to the Eagleview that the EMR system have two Head.

EMR Head 1 Id:
        Master: Select the Id of the first EMR Head.
        Slave: Select the EMR Id of the Head to be Display.

EMR Head 2 Id: Select the Id of the second EMR Head.

5.2.8. Changing the Eagleview's Pulse Setting

Mode:
        Independent: Use the Eagleview pulse input with two independent pulse counter.
        Bidirectional: Use the Eagleview pulse input with one bidirectional pulse counter.

Pulse 1:   Number of pulse per rotation for the pulse input 1.

Pulse 2:   Number of pulse per rotation for the pulse input 2.
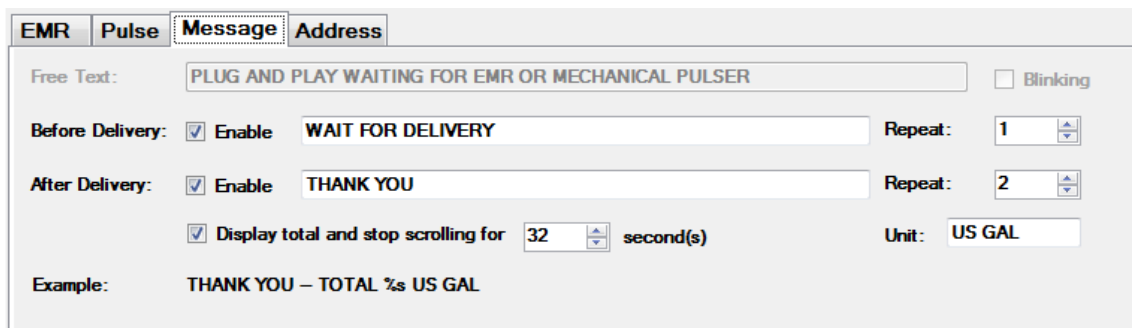
Tank Id: Name of the Tank (For special feature only)

Format:
    Floating point: Allow or disable the floating decimal.
    Precision: Set the number of digit after the decimal point.

Note: Look the example to see how it affects the display format.

5.2.9. Changing the Eagleview's message

Free Text: Insert the message to be displayed in Free Text Mode. Max: 100 characters.
Blinking: Allow or disable text blinking

Before Delivery: Message to be display in loop before a delivery. Can be enabled or disabled. Repeat is for future feature only.

After Delivery: Message to be display after a delivery. Can be enabled or disabled. You can choose how many times to repeat this message. You can also add the total and the unit of measure.

Note: The stop scrolling for x seconds, is not exactly in seconds at this time. This will be corrected soon.

5.2.10. Changing the Eagleview's address

Those options are for future feature that are still in development. Do not change this setting.

Company Id: Id of your company this will be give by Tekinno Corporation Inc.
Asset Id: Id of the Eagleview.
Device Id: Id of the Device on the Tekinno Network.

5.3. Eagleview Manager Software update

The Eagleview Manager Software automatically searches if an update is available over your Internet connection every time you open the software. You can also manually check for update by clicking on the menu Help →check for update.

5.4. Uninstall the Eagleview Manager Software

To uninstall the software, go to the Control Panel, click on Add or Remove Programs (Program and Features on Vista) then select Eagleview Manager Software in the list. Then follow on screen instruction.

6. WARRANTY

The EagleView displays are guaranteed against all defects of material and fabrication for a period of one (1) year from date of purchase from an authorized dealers or distributors. This guarantee does not apply to damages or problems resulting from abuse, wrong installation, bad wiring or poor maintenance of the product. IF THE SEALS ON THE EAGLEVIEW UNIT HAVE BEEN BROKEN THIS GUARANTEE IS NUL AND VOID.

NOTE: The installation is the responsibility of the buyer.

TEKINNO CORPORATION Inc. denies all responsibility for direct or indirect losses resulting from the use of the EagleView displays. TEKINNO will in no way be held responsible for losses of materials, life , or revenue and profits resulting from fire. This product should be considered a display device only, it was conceived to be a tool allowing the owner to show value or useful information from different sensors, electromechanical pulser or electronic registers. TEKINNO is not responsible for the information's displayed.

EXCEPTING THE STATED CONDITIONS, TEKINNO CORPORATION INC. OFFERS NO GUARANTEE IMPLIED STATED, OR OTHERWISE ON THE LONGEVITY OR DURABILTY OF THE PRODUCT ONCE INSTALLED FOR USE AS DESIGNED.

7. SERVICE

In case of problems or defects, do not hesitate to contact us or your distributor who sold you the product. In the event that you purchased the unit directly from Tekinno Corporation inc, you may reach us by calling 514-316-1880 or on our toll-free number 1-877-698-3546. You can also reach us by e-mail at support@eagleviewdisplay.com and our knowledgeable staff will be more than happy to help you